

AIR GAP WINDING METHOD AND SUPPORT STRUCTURE FOR A
SUPERCONDUCTING GENERATOR AND METHOD FOR FORMING THE
SAME

ABSTRACT OF THE DISCLOSURE

A winding support structure for use with a superconducting rotor and method for forming the same comprises an inner support ring, an outer support ring arranged around the inner support ring, first and second support blocks coupled to the outer support ring and a lamination coupled to the first and second support blocks. A slot is defined between the support blocks and between the outer support ring and the lamination to receive a portion of a winding. The inner ring is a solid ring and the outer ring is a split ring. The outer ring expands to produce a radially outward force against the support blocks and the winding when the inner ring is moved axially with respect to the outer ring. An RTV fills any clearance space in the slot.

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